


REPORT

DATE: February 2, 2006

TO: Energy and Environment Committee
Regional Council

FROM: Jessica Kirchner, Associate Regional Planner, kirchner@scag.ca.gov, (213)236-1983

SUBJECT: Conformity Finding for the Fine Particle Standard

EXECUTIVE DIRECTOR'S APPROVAL: 

RECOMMENDED ACTION:

Approve the Transportation Air Quality Conformity Determination for the Fine Particle standard for the 2004 RTP and 2004 RTIP and recommend to the Regional Council to adopt Resolution 06-471-2.

(Regional Council action: to adopt Resolution 06-471-2)

SUMMARY:

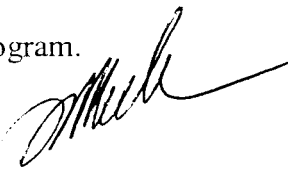
The EEC released the Draft Fine Particle (PM2.5) Conformity Determination for public review and comment on November 22, 2005. The public comment period closed on January 5, 2006. A public hearing was held at SCAG on January 5, 2006. SCAG did not receive any public comments on the Draft Conformity Determination.

BACKGROUND:

The fine particle standard is a new federal health-based standard for particulate pollution that is 2.5 microns or smaller (particulate matter (PM2.5)). This new regulation requires the Southern California Association of Governments (SCAG) to receive approval from the United States Department of Transportation (USDOT) on SCAG's conformity determination on the 2004 Regional Transportation Plan (RTP) and the 2004 Regional Transportation Improvement Program (RTIP) by April 5, 2006 or the region risks a conformity lapse. Non-attainment area designations for the new fine particle standard became effective on April 5, 2005, and an approved conformity determination is required by April 5, 2006, one year after the effective date. A conformity determination consists of regional emissions analyses, financial constraint test, timely implementation of Transportation Control Measures (TCMs), the use of the latest planning assumptions, appropriate documentation of findings, interagency consultation, and public involvement. The Fine Particle conformity determination reaffirms all of the applicable conformity findings for the 2004 RTP and 2004 RTIP and addresses additional analyses required for the new Fine Particle standard.

FISCAL IMPACT:

Funds for air quality and conformity analysis are included in the FY 05/06 Overall Work Program.



RESOLUTION No. 06-471-2

**RESOLUTION OF
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS
TO ADOPT THE CONFORMITY DETERMINATION FOR THE FINE
PARTICULE (2.5) STANDARD FOR THE 2004 REGIONAL
TRANSPORTATION PLAN AND THE 2004 REGIONAL TRANSPORTATION
IMPROVEMENT PROGRAM**

WHEREAS, the Southern California Association of Governments (SCAG) is the federally designated Metropolitan Planning Organization (MPO) pursuant to 23 U.S.C. §134(d) for the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura, and as such, is responsible for the preparation, adoption and regular revision of the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP) pursuant to 23 U.S.C. §134 et seq. 49 U.S.C. §5303 et seq. and 23 C.F.R. §450.312;

WHEREAS, SCAG is the designated Regional Transportation Planning Agency (RTPA) under state law, and as such, is responsible for preparation of both the RTP and RTIP under California Government Code §§ 65080 and 65082 respectively;

WHEREAS, 42 U.S.C. § 7506(c)(1) requires SCAG's 2004 RTP and 2004 RTIP to conform with the applicable State Implementation Plan (SIPs) developed for the federal non-attainment and maintenance areas in the Mojave Desert Air Basin, the Ventura County portion of the South Central Coast Air Basin, the South Coast Air Basin, and the Salton Sea Air Basin;

WHEREAS, SCAG, as the designated MPO, is required to comply with Sections 174 and 176(c) and (d) of the Clean Air Act [42 U.S.C. §§ 7504, 7506(c) and (d)];

WHEREAS, 23 U.S.C. §134(j)(2)(C) and 23 C.F.R. §450.324(f)(2) requires the 2004 RTIP to be consistent with the 2004 RTP;

WHEREAS, 23 U.S.C. § 134 (c)(3) and 23 C.F.R. § 450.312 require SCAG, as the designated MPO, to maintain a continuing, cooperative and comprehensive transportation planning process in its development of the RTP and RTIP;

WHEREAS, SCAG has worked concurrently with local, state and federal jurisdictions in a continuing, cooperative and comprehensive manner as required by provisions of Federal and State law on the transportation planning processes;

WHEREAS, federal regulations at 23 C.F.R. § 450.332(e) require that in non-attainment and maintenance areas, funding priority be given to timely implementation of Transportation Control Measures (TCMs) contained in the applicable SIPs in accordance with the conformity regulations at 40 CFR Parts 51 and 93;

WHEREAS, non-attainment area designations for the new fine particle (PM_{2.5}) standard became effective on April 5, 2005, and an approved conformity determination is required one year after the effective date;

WHEREAS, new federal conformity regulation for PM2.5 requires the Southern California Association of Governments (SCAG) to receive approval from the United States Department of Transportation (US DOT) on SCAG's conformity determination by April 5, 2006;

WHEREAS, fine particle (PM2.5) non-attainment area in the SCAG region includes only the South Coast Air Basin (SCAB);

WHEREAS, the Southern California Transportation Conformity Working Group (TCWG) and the Energy and Environment Committee developed an efficient process to obtain an approved PM2.5 conformity determination for the 2004 RTP and RTIP;

WHEREAS, the PM2.5 conformity determination entails reaffirming previously approved analyses and findings for the 2004 RTP and 2004 RTIP;

WHEREAS, the conformity rule interim emissions test, known as *less than baseline year*, requires demonstration that implementing the 2004 RTP and the 2004 RTIP is not projected to increase emissions of fine particles (PM2.5) in future years above the emissions in the baseline year 2002.

WHEREAS, the Draft Conformity Determination for the PM2.5 Standard was available for public review and comment from November 22, 2005 to January 5, 2006;

WHEREAS, a public hearing was conducted at the Southern California Association of Governments on January 5, 2006;

NOW, THEREFORE BE IT RESOLVED that

(1) Southern California Association of Governments finds as follows:

- (a) SCAG's 2004 RTP/RTIP regional emissions (build scenario) for direct PM2.5 emissions and PM2.5 precursors are less than the no-build emissions for the South Coast Air Basin;
- (b) The conformity findings for both the 2004 RTP and the 2004 RTIP are reaffirmed for all applicable pollutants, including regional emissions analyses, financial constraint test, timely implementation of Transportation Control Measures (TCMs) report, applying the use of the latest planning assumptions and the latest approved emissions model, reaffirming consistency between the adopted 2004 RTIP and the adopted 2004 RTP, and reaffirming the process for interagency consultation and public participation;
- (c) In addition to reaffirming the already conducted public involvement and interagency consultation test for the 2004 RTP/RTIP, the PM2.5 conformity underwent the appropriate process for interagency consultation and public participation;

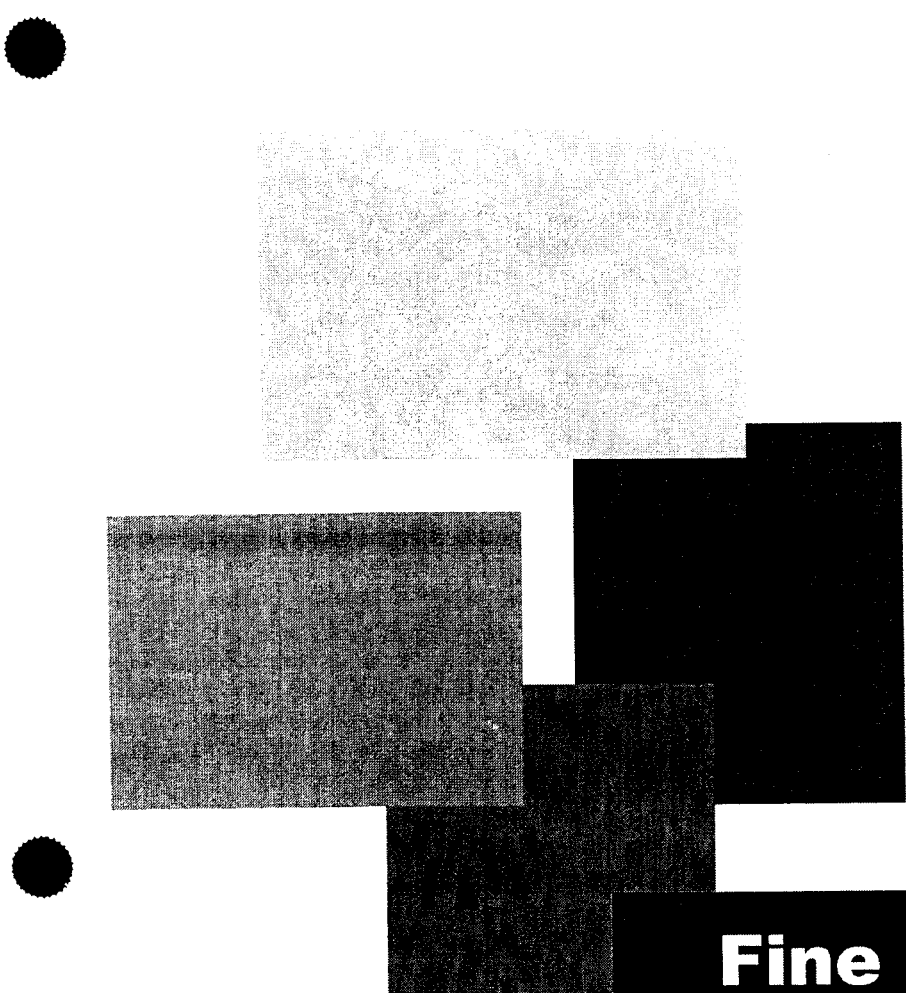
(2) The Regional Council hereby adopts the conformity findings for all federal non-attainment and maintenance areas in the SCAG region, and authorizes the Executive Director or his designee to transmit the Conformity Determination for the PM2.5 Standard for the 2004 RTP and the 2004 RTIP to the Federal Transit Administration and the Federal Highway Administration to make the final conformity determination in accordance with the Federal Clean Air Act and EPA Transportation Conformity Rule at 40 CFR Parts 51 and 93.

Adopted by the Regional Council of the Southern California Association of Governments at a regular meeting on this 2nd day of February 2006.

TONI YOUNG
President, SCAG
Councilmember, City of Port Hueneme

Attest: _____
MARK PISANO
Executive Director

Approved as to Legal Form: _____
KAREN TACHIKI
Legal Counsel

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Fine Particle (PM2.5) Conformity Finding

I. PREFACE

This conformity report covers all federally required analyses for the Fine Particle (PM_{2.5}) conformity determination for the 2004 Regional Transportation Plan (RTP) and 2004 Regional Transportation Improvement Program (RTIP). A conformity determination consists of regional emissions analyses, financial constraint test, timely implementation of Transportation Control Measures (TCMs), the use of the latest planning assumptions, appropriate documentation of findings, interagency consultation, and public involvement. The Fine Particle conformity determination reaffirms all of the applicable conformity findings for the 2004 RTP and 2004 RTIP and addresses additional analyses required for the new Fine Particle standard. Additionally, per 40 CFR 93.122(g), the conformity determination relies on the previous regional emissions analyses as developed for the RTIP/RTP for NO₂, CO and PM₁₀ and for the 8-hour Ozone conformity determination approved by US Department of Transportation on May 12, 2005.

The Fine Particle standard is a new federal health-based standard for particulate pollution that is 2.5 microns or smaller (particulate matter (PM_{2.5})). This new regulation requires the Southern California Association of Governments (SCAG) to receive approval from the United States Department of Transportation (US DOT) on SCAG's conformity determination on the 2004 Regional Transportation Plan (RTP) and the 2004 Regional Transportation Improvement Program (RTIP) by April 5, 2006 or the region risks a conformity lapse. Non-attainment area designations for the new fine particle (PM_{2.5}) standard became effective on April 5, 2005, and an approved conformity determination is required by April 5, 2006, one year after the effective date.

Conformity Status of Adopted RTP and RTIP

The adopted 2004 RTP and 2004 RTIP conform to the air quality goals established by the State (air quality) Implementation Plan (SIP). Specifically, the 2004 RTP and RTIP will 1) not create new violations of the federal air quality standards, 2) not increase the frequency or severity of existing violations of the standards, and 3) not delay attainment of the standards.

The effective date for the conformity determination for the adopted 2004 RTP, including all of the air basins, is June 7, 2004, and the effective date of the federal conformity determination for the 2004 RTIP is October 4, 2004. The conformity determination for the adopted RTP is currently effective for three years; thus, the RTP conformity will remain effective until June 7, 2007. The conformity determination for the adopted RTIP is currently effective for two years; thus, the RTIP conformity will remain effective until October 4, 2006.

The Fine Particle conformity determination does not affect the existing conformity schedule for the RTP or RTIP. However, the new federal conformity regulation for PM_{2.5} requires the Southern California Association of Governments (SCAG) to make a positive conformity determination and receive approval from the United States Department of Transportation (US DOT) by April 5, 2006 or the region's conformity will lapse.

The Southern California Transportation Conformity Working Group (TCWG) discussed an efficient process to obtain an approved PM_{2.5} conformity determination for the 2004 RTP and RTIP (August 23, 2005 <http://www.scag.ca.gov/tcwg/>), and staff presented this process to the SCAG Energy and Environment Committee on September 1, 2005. This process entails reaffirming previously approved air quality conformity analyses and findings for the 2004 RTP and 2004 RTIP and addressing additional analyses required by the new Fine Particle standard. This approach parallels the process for the 8-hour ozone conformity determination.

Proposed process for Fine Particle conformity determination on the 2004 RTP and RTIP:

1. Conduct ongoing public participation and interagency consultation throughout the process.
2. Perform regional emission analysis. PM_{2.5} is a new air quality standard with no established emission budgets, and requires an *interim emissions test*. The interim emissions test requires SCAG to demonstrate that implementing the 2004 RTP and the 2004 RTIP is not expected to cause PM_{2.5} emissions to exceed emissions in year 2002. This PM_{2.5} conformity determination includes regional emissions analysis for direct PM_{2.5} emissions and NO_x as a PM_{2.5} precursor. The modeling years are the 2002 baseline year and 2010, 2020, and 2030.
3. Reaffirm the existing conformity findings for the 2004 RTP and 2004 RTIP.
4. Release the draft conformity analyses and documentation for the new PM_{2.5} standard in November 2005 for a public comment period.
5. Hold a public hearing in January 2006.
6. Adopt the resolution making the final conformity determination in February 2006.
7. Send SCAG's Conformity Determination to the federal agencies for approval.
8. Approval by federal agencies before April 5, 2006.

Reaffirming approved conformity findings for NO₂, Ozone, PM₁₀, and CO:

The fine particle conformity determination includes a reaffirmation of the approved conformity findings for both the 2004 RTP and the 2004 RTIP. This reaffirmation includes regional emissions analyses, financial constraint test, timely implementation of Transportation Control Measures (TCMs) report, the use of the latest planning assumptions and the latest approved emissions model, and the appropriate documentation of findings, including reaffirming the process for interagency consultation and public participation.

II. FINE PARTICLE (PM_{2.5}) CONFORMITY REQUIREMENTS

Introduction

The Southern California Association of Governments (SCAG), the Metropolitan Planning Organization (MPO) for Southern California, is mandated to comply with all applicable federal and state transportation and air quality regulations. As stated above, the new federal conformity regulation for fine particles (PM_{2.5}) requires SCAG to receive approval from the United States Department of Transportation (US DOT) on SCAG's conformity determination by April 5, 2006. Non-attainment area designations for the new for fine particle (PM_{2.5}) standard became effective on April 5, 2005, and an approved conformity determination is required one year after

the effective date. If US DOT does not approve SCAG's determination by April 5, 2006, then the region's conformity will lapse.

Fine Particle (PM_{2.5}) Non-attainment Area

The South Coast Air Basin is the only PM_{2.5} non-attainment area in the SCAG Region and is illustrated in the map attached at the end of this report.

Table 1: SCAG Region – Fine Particle (PM_{2.5}) Non-attainment Area

Non-attainment Area	Maximum Attainment Date
South Coast Air Basin (SCAB)	2010 with a possible 5 year extension to 2015

Interim Emissions Test for Fine Particle (PM_{2.5})

Fine particulate matter (PM_{2.5}) is a new air quality standard, and requires an interim emissions test. An interim emissions test is required before new emissions budgets, which establish the maximum allowable level of specific emissions for particular future years, are developed as part of the PM_{2.5} Air Quality Management Plan/State Implementation Plan (SIP). The interim emissions test for PM_{2.5} requires SCAG to run the regional transportation model and the state emissions model (Burden/EMFAC2002) for the year 2002 and for future milestone years, including 2010, 2020, and 2030. The interim emissions test employed for this PM_{2.5} conformity determination is called the *baseline year test*, which entails comparing PM_{2.5} emissions modeled for future milestone years to PM_{2.5} emissions in baseline year 2002. In order to pass the baseline year test, SCAG is required to demonstrate that implementing the 2004 RTP and the 2004 RTIP is not projected to increase emissions of fine particles (PM_{2.5}) in future years above the emissions in the baseline year 2002.

The final PM_{2.5} rule requires PM_{2.5} non-attainment areas to consider both direct PM_{2.5} emissions and significant precursor emissions. The final federal PM_{2.5} rule adds PM_{2.5} precursors, such as nitrogen oxides (NO_x), to the transportation conformity regulations because these gases react and cool to form fine particles. Prior to the submission of the proposed PM_{2.5} State Implementation Plan (SIP/Air Quality Management Plan), direct PM_{2.5} emissions and NO_x emissions must be considered in PM_{2.5} conformity determinations. For this initial PM_{2.5} conformity determination, no federal significance findings have been made to add any additional PM_{2.5} precursors, although additional PM_{2.5} precursors may be required for future conformity determinations after a PM_{2.5} State Implementation Plan has been submitted to US EPA, if additional PM_{2.5} precursors are determined to be important contributors to PM_{2.5} problems in the South Coast Air Basin.

Summary of the 2004 RTP and 2004 RTIP Regional Emissions Analyses for PM_{2.5}

- Emissions for the PM_{2.5} conformity determination were calculated using the annual output from the EMFAC2002 emissions model. Annual emissions were calculated by multiplying daily emissions by 365. Emissions output is shown in the Appendix at the end of this report.
- Baseline emissions for the year 2002 were calculated by constructing a network for 2002 and interpolating socioeconomic data.
- Future year emissions (2010, 2020 and 2030) were taken from the 2004 RTP/RTIP.
- To pass the baseline year interim regional emissions test for the conformity finding, projected direct PM_{2.5} emissions and NO_x emissions must be less than or equal to direct PM_{2.5} emissions and the NO_x emissions in the baseline year 2002.
- Planning assumptions are documented in Appendix E of the 2004 RTP (p. E-28-E-42) and Technical Appendix Section II of the 2004 RTIP (p. II-5-II-17).
 - * EMFAC 2002 was used for Regional Emissions Analysis.
 - * Modeling networks for each milestone year are based on projects and completion dates included in Appendix I of the 2004 RTP and Technical Appendix Section II of the 2004 RTIP (beginning on p. II-60).

A summary of the regional emissions analysis (conformity findings) is tabulated below. Additional emissions data is provided in the Appendix at the end of this document.

24-hour PM_{2.5} Standard for South Coast Air Basin (SCAB)*

Pollutant		2010	2020	2030
PM _{2.5}	Baseyear emissions	13.27	13.27	13.27
	2004 RTP/RTIP	12.49	12.06	12.72
NO _x	Baseyear emissions	715.34	715.34	715.34
	2004 RTP/RTIP	417.99	192.74	125.75

Regional emissions generated using EMFAC 2002. To pass, RTP/RTIP emissions must be equal or less than baseyear emissions.

Annual PM_{2.5} Standard for South Coast Air Basin (SCAB)

Pollutant		2010	2020	2030
PM _{2.5}	Baseyear emissions	4844	4844	4844
	2004 RTP/RTIP	4559	4402	4643
NO _x	Baseyear emissions	261,099	261,099	261,099
	2004 RTP/RTIP	152,565	70,351	45,898

Regional emissions generated using EMFAC 2002. To pass, RTP/RTIP emissions must be equal or less than baseyear emissions.

* Based on annual average emissions

Conformity Determinations

SCAG has determined the following conformity findings for the 2004 RTP and 2004 RTIP under the required federal tests for the new fine particle (PM_{2.5}) standard:

Regional Emissions Tests

- Finding: SCAG's 2004 RTP/RTIP regional emissions for direct PM_{2.5} and NO_x are less than the baseline year 2002 for the 24-hour and the annual standard in the South Coast Air Basin.

Financial Constraint/Timely Implementation

- Since the 2004 RTIP, one of the TCMs (CenterLine) is being replaced; currently the substitute projects and the financial changes are being processed and will be reflected in an amendment.

Reaffirmation of 2004 RTP/RTIP Conformity Tests

- Finding: SCAG reaffirms the applicable conformity findings for both the 2004 RTP/RTIP, which can be found at:

<http://www.scag.ca.gov/rtp2001/2004draft/techappendix/FinalTechAppend.htm>
and:

<http://www.scag.ca.gov/RTIP/final04/Sec1.pdf>.

- This reaffirmation covers the findings for all applicable pollutants, including regional emissions analyses, financial constraint test, timely implementation of Transportation Control Measures (TCMs) report, applying the use of the latest planning assumptions and the latest approved emissions model, reaffirming consistency between the adopted 2004 RTIP and the adopted 2004 RTP, and reaffirming the process for interagency consultation and public participation.

Inter-agency Consultation and Public Involvement Test

- Finding: In addition to reaffirming the already conducted public involvement and interagency consultation test for the 2004 RTP/RTIP, the fine particle (PM_{2.5}) conformity determination underwent an appropriate process for interagency consultation and public participation. This process included Transportation Conformity Working Group consultations on August 23, 2005, October 25, 2005, and December 27, 2005; Energy and Environment Committee updates on September 1, 2005 and November 3, 2005 and a briefing of the Subregional Coordinators on October 27, 2005. An announcement of the public comment period was placed on the SCAG website on November 22, 2005. Copies of the PM_{2.5} Conformity Determination packet were distributed to twelve regional libraries. A formal Public Hearing was held at SCAG's offices on January 5, 2006. This event was advertised in several regional newspapers in December of 2005, including the Imperial Valley Press, La Opinion, Long Beach

Press Enterprise, Los Angeles Times, Orange County Register, San Bernardino Sun, Riverside Press-Enterprise, and Ventura Star.

REGIONAL EMISSIONS ANALYSES

SOUTH COAST AIR BASIN (SCAB)

The South Coast Air Basin (SCAB) covers the urbanized portions of Los Angeles, Orange, Riverside, and San Bernardino counties, and is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

Particulate Matter 2.5 – 24 Hour Emissions

	YR 2002	YR 2010	YR 2020	YR 2030
2004 RTP/RTIP	N/A	12.49	12.07	12.71
Exhaust	10.48	9.49	8.83	9.20
Tire Wear	0.83	0.9	0.98	1.08
Brake	1.97	2.1	2.25	2.44
Total PM _{2.5} Exhaust	13.27	12.49	12.06	12.72
Baseyear Emissions	13.27	13.27	13.27	13.27
Difference (plan – baseyear)	N/A	-0.78	-1.21	-0.55

Conformity finding requirement: PM_{2.5} plan emissions must be equal or less than baseyear.

Particulate Matter 2.5 – Annual Emissions

	YR 2002	YR 2010	YR 2020	YR 2030
2004 RTP/RTIP	N/A	4559	4406	4639
Exhaust	3,825	3,464	3,223	3,358
Tire Wear	303	329	358	394
Brake	719	767	821	891
Total PM _{2.5} Exhaust	4,844	4,559	4,402	4,643
Baseyear Emissions	4,844	4,844	4,844	4,844
Difference (plan – baseyear)	N/A	-285	-442	-201

Conformity finding requirement: PM_{2.5} plan emissions must be equal or less than baseyear.

2004 RTP and RTIP Conformity Findings for the Fine Particle (PM_{2.5}) Standard

Oxides of Nitrogen – 24 Hour Emissions

	YR 2002	YR 2010	YR 2020	YR 2030
2004 RTP/RTIP	N/A	417.99	192.74	125.75
Baseyear Emissions	715.34	715.34	715.34	715.34
Difference (plan – baseyear)	N/A	-297.35	-522.60	-589.59

Conformity finding requirement: PM_{2.5} plan emissions must be equal or less than baseyear

Oxides of Nitrogen – Annual Emissions

	YR 2002	YR 2010	YR 2020	YR 2030
2004 RTP/RTIP	N/A	152,565	70,351	45,898
Baseyear Emissions	261,099	261,099	261,099	261,099
Difference (plan – baseyear)	N/A	-108,534	-190,748	-251,201

Conformity finding requirement: PM_{2.5} plan emissions must be equal or less than baseyear.

SUMMARY OF EMISSIONS ANALYSIS OF ADDITIONAL CRITERIA POLLUTANTS

In addition to the regional emissions analysis for PM_{2.5}, below is a summary of the regional emissions analysis for additional criteria pollutants in the SCAG region. For more detailed tables, see Technical Appendix Section II of the 2004 RTIP (p. II-11 to II-59). All emissions are in tons per day.

South Coast Air Basin (SCAB)

Nitrogen Dioxide (NO_x) -Winter

<u>NO_x</u>	<u>YR 2005</u>	<u>YR 2010</u>	<u>YR 2020</u>	<u>YR 2030</u>
BUDGET	686.000	686.000	686.000	686.000
2004 RTIP	613.664	448.827	205.602	132.970

Conformity finding requirement: the NO_x emissions must be equal or less than emission budgets.

Carbon Monoxide (CO) – Winter

<u>CO</u>	<u>YR 2005</u>	<u>YR 2010</u>	<u>YR 2020</u>	<u>YR 2030</u>
BUDGET	3,361.000	3,361.000	3,361.000	3,361.000
2004 RTIP	2,597.739	1,809.900	859.679	529.757

Conformity finding requirement: the CO emissions must be equal or less than emission budgets.

Particulate Matter Less Than 10 Microns (PM₁₀) – Annual Average

<u>ROG</u>	<u>YR 2006</u>	<u>YR 2010</u>	<u>YR 2020</u>	<u>YR 2030</u>
BUDGET	251.000	251.000	251.000	251.000
2004 RTIP	245.350	189.074	106.433	72.495

<u>NO_x</u>				
BUDGET	549.000	549.000	549.000	549.000
2004 RTIP	534.144	418.005	192.723	125.728

<u>PM₁₀</u>				
BUDGET	166.000	166.000	166.000	166.000
2004 RTIP	165.927	163.375	161.520	163.893

Conformity finding requirement: the ROG, NO_x, and PM₁₀ emissions must be equal or less than emission budgets.

2004 RTP and RTIP Conformity Findings for the Fine Particle (PM2.5) Standard

Ozone – Summer

Ozone Precursor

<u>ROG (VOC)</u>	<u>YR 2005</u>	<u>YR 2008</u>	<u>YR 2010</u>	<u>YR 2020</u>	<u>YR 2030</u>
BUDGET	263.000	216.000	155.000	155.000	155.000
2004 RTP/RTIP	258.467	212.754	151.339	107.230	73.127

NOx

BUDGET	546.000	546.000	352.000	352.000	352.000
2004 RTP/RTIP	542.271	453.459	349.	184.2	120.8

Conformity finding requirement: RTP/RTIP emissions must be equal or less than budget

Nitrogen Dioxide (NO2) – Winter

NO2 Precursor

<u>NOx</u>	<u>YR 2005</u>	<u>YR 2010</u>	<u>YR 2020</u>	<u>YR 2030</u>
BUDGET	686.000	686.000	686.000	686.000
2004 RTP/RTIP	6153.664.091	448.586	205.751	132.980

Conformity finding requirement: RTP/RTIP emissions must be equal or less than budget

Mojave Desert Air Basin (MDAB)

(San Bernardino County portion of MDAB excluding Searles Valley)

Particulate Matter Less Than 10 Microns (PM10) – Annual Average

<u>PM10</u>	<u>YR 2005</u>	<u>YR 2010</u>	<u>YR 2020</u>	<u>YR 2030</u>
2004 RTIP No-Build	7.875	9.066	10.966	13.262
2004 RTP Plan	7.837	8.843	10.889	13.046

Conformity finding requirement: the Plan scenario's emissions must be equal or less than the No-Build scenario's emissions.

Western Mojave Desert Air Basin (MDAB)

Ozone – Summer

Ozone Precursor

<u>ROG (VOC)</u>	<u>YR 2005</u>	<u>YR 2007</u>	<u>YR 2010</u>	<u>YR 2020</u>	<u>YR 2030</u>
BUDGET	21.900	19.100	19.100	19.100	19.100
2004 RTP/RTIP	18.800	16.436	13.330	7.690	6.340

NOx

BUDGET	56.000	52.100	52.100	52.100	52.100
2004 RTP/RTIP	52.510	48.38	41.750	19.310	4.360

Conformity finding requirement: RTP/RTIP emissions must be equal or less than budget

Salton Sea Air Basin (SSAB) – Coachella Valley

Particulate Matter Less Than 10 Microns (PM10) – Annual Average

<u>PM10</u>	<u>YR 2006</u>	<u>YR 2010</u>	<u>YR 2020</u>	<u>YR 2030</u>
BUDGET	10.900	10.900	10.900	10.900
2004 RTIP Plan	9.168	9.484	10.044	10.671

Conformity finding requirement: the PM10 emissions must be equal or less than emission budgets.

Ozone - Summer

Ozone Precursor

<u>ROG (VOC)</u>	<u>YR 2005</u>	<u>YR 2007</u>	<u>YR 2010</u>	<u>YR 2013</u>	<u>YR 2020</u>	<u>YR 2030</u>
BUDGET	4.600	4.100	4.100	4.100	4.100	4.100
2004 RTP/RTIP	4.310	3.906	3.361	2.867	2.234	1.838

NOx

BUDGET	12.300	11.100	11.100	11.100	11.100	11.100
2004 RTP/RTIP	12.008	11.016	9.305	7.623	4.913	3.460

Conformity finding requirement: the Build emissions must be less than the No-Build emissions.

Salton Sea Air Basin (SSAB) – Imperial County**Particulate Matter Less Than 10 Microns (PM10) – Annual Average**

<u>PM10</u>	<u>YR 2005</u>	<u>YR 2010</u>	<u>YR 2020</u>	<u>YR 2030</u>
2004 RTIP No-Build	5.577	6.339	8.306	10.252
2004 RTIP Plan	5.574	6.334	7.798	9.610

Conformity finding requirement: the Plan scenario's emissions must be equal or less than the No-Build scenario's emissions.

Ozone - Summer**Ozone Precursor**

<u>ROG (VOC)</u>	<u>YR 2005</u>	<u>YR 2010</u>	<u>YR 2020</u>	<u>YR 2030</u>
No build (Baseline)	8.850	7.230	5.630	5.720
Build (Plan)	8.845	7.220	5.610	5.690

NOx

No-Build (Baseline)	12.725	11.800	8.881	7.810
Build (Plan)	12.720	11.790	8.880	7.790

Conformity finding requirement: the Build emissions must be less than the No-Build emissions

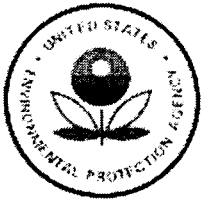
Ventura County – South Central Coast Air Basin (VC/SCCAB)**Ozone – Summer****Ozone Precursor**

<u>ROG (VOC)</u>	<u>YR 2005</u>	<u>YR 2010</u>	<u>YR 2020</u>	<u>YR 2030</u>
BUDGET	14.300	14.300	14.300	14.300
2004 RTP/RTIP	14.180	10.670	6.160	4.170

NOx

BUDGET	21.400	21.400	21.400	21.400
2004 RTP/RTIP	21.190	15.170	6.800	4.350

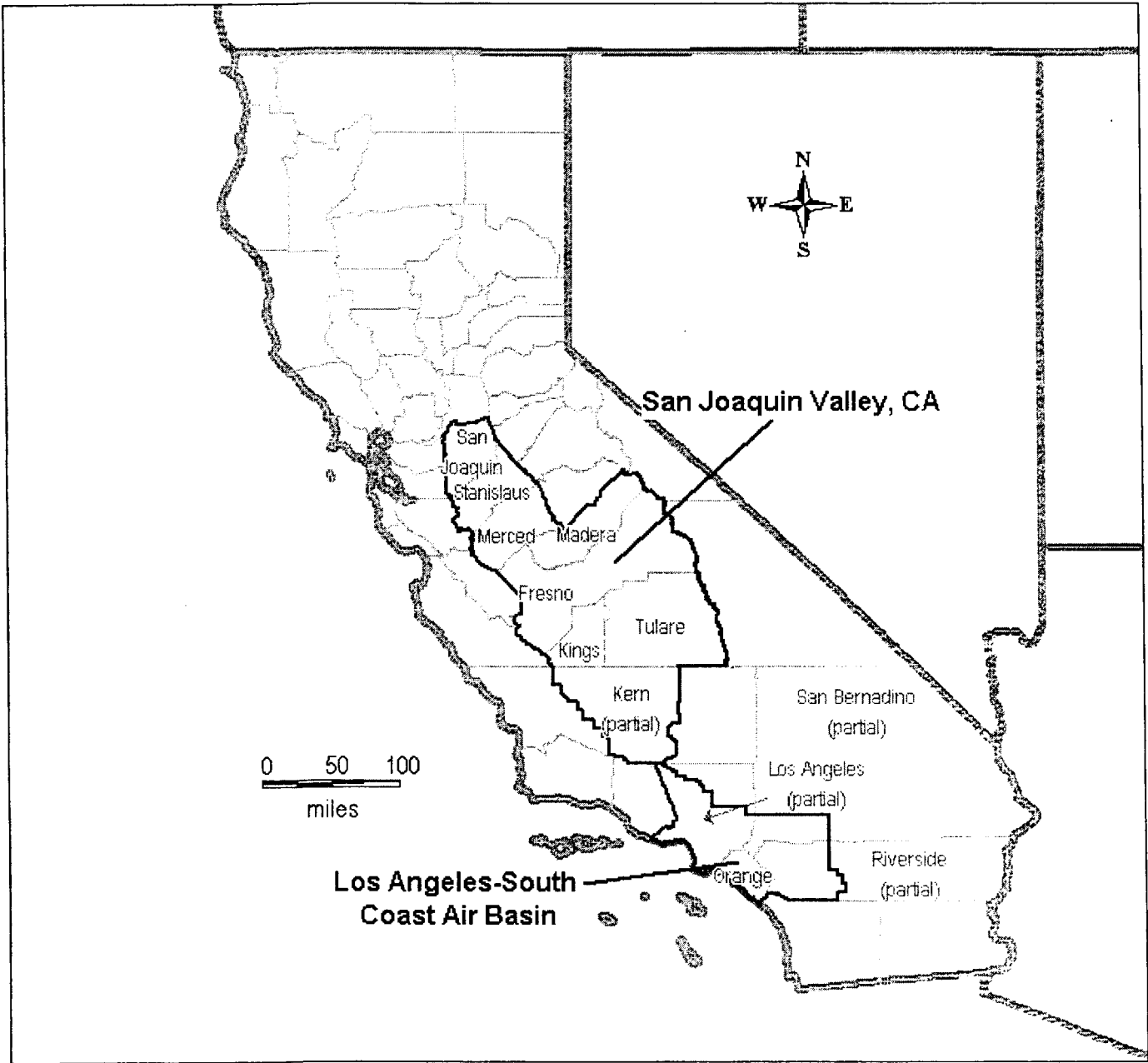
Conformity finding requirement: RTP/RTIP emissions must be equal or less than budget



U.S. Environmental Protection Agency
Fine Particle (PM 2.5) Designations

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California PM 2.5 Designations Map



APPENDIX

YEAR 2002 - annual (02rrr.zip)

Emfac2002 V2.2 Apr 23 2003 ** WIS Enabled **

Scen Year: 2002 -- Model Years: 1965 to 2002

Run Date : 09/30/05 14:59:28
Season : Annual

Friday, September 30, 2005 3:02:26 PM Page (1)

VEHICLE ON-ROAD EMISSIONS (Emissions in tons, VMT in 1000-miles, Fuel Consumption in 1000-gallons)

SUB AREA	VEHICLE	VMT	STARTS	ROG	CO	NOX	PM2.5ex	Tire W	Brake W	PM2.5sum	SOx	Gasoline	Diesel
LOS(SCAB)	HDT	186984	12649	4792546	24.04	194.39	203.12	0.08	0.08	3.25	1.56	315.53	1647.88
	L&M	5254661	180280	32653716	191.50	1966.37	199.83	0.40	1.07	4.50	1.22	9400.72	51.46
	OTH	60580	1617	56098	3.07	46.28	20.50	0.00	0.01	0.33	0.17	75.90	172.21
	SUM	5502220	194547	37502400	218.60	2207.03	423.46	0.48	1.15	8.09	2.94	9792.14	1871.54
ORA(SCAB)	HDT	49513	3459	1336680	5.38	44.36	48.08	0.01	0.02	0.68	0.38	92.18	405.49
	L&M	2069686	65698	12930883	59.16	569.45	58.84	0.15	0.39	1.41	0.43	3312.33	21.60
	OTH	23302	489	14664	0.87	14.29	4.63	0.00	0.00	0.08	0.03	26.22	34.46
	SUM	2142500	69646	14282200	65.40	628.12	111.55	0.17	0.41	2.16	0.85	3430.73	461.54
RIV(SCAB)	HDT	54262	4362	1366891	6.81	56.91	70.83	0.02	0.02	0.90	0.52	104.75	544.26
	L&M	815063	32621	5056427	27.33	300.87	31.69	0.06	0.19	0.78	0.22	1632.77	12.84
	OTH	18395	361	8578	0.60	11.80	2.80	0.00	0.00	0.05	0.02	20.66	17.08
	SUM	887720	37342	6431900	34.74	369.57	105.31	0.10	0.22	1.73	0.75	1758.17	574.18
SBD(SCAB)	HDT	40260	2945	984441	4.52	37.30	51.69	0.01	0.01	0.66	0.39	62.40	402.57
	L&M	809120	27221	5022922	26.83	267.59	28.03	0.05	0.16	0.61	0.18	1376.25	9.18
	OTH	12873	237	7851	0.39	7.70	2.12	0.00	0.00	0.03	0.01	12.52	15.12
	SUM	862253	30404	6015220	31.74	312.59	81.85	0.08	0.18	1.29	0.57	1451.15	426.86
SCAB SUM	HDT	331019	23416	8480547	40.76	332.93	373.72	0.16	0.14	5.50	2.83	574.84	3000.18
	L&M	8948519	305820	55664001	304.79	3104.27	318.39	0.68	1.82	7.29	2.05	15722.04	95.06
	OTH	115150	2705	87191	4.92	80.09	30.04	0.00	0.02	0.48	0.24	135.30	238.87
	SUM	9394690	331939	64231700	350.47	3517.31	722.16	0.83	1.97	13.27	5.12	16432.18	3334.11

Note:

Banning Area is included in SCAB, not in Coachella Valley

SUM = Light & Medium Duty Vehicle + Heavy Duty Truck + Others

L&M = Passenger car + Light Duty Truck(1) & (2) + Medium Duty Truck + Motor Cycle

HDT = Light Heavy Duty Truck (1) & (2) + Medium Heavy Duty Truck + Heavy Heavy Duty Truck

OTH = Linc Haul Vehicle + School Bus + Urban Bus + Motor Home

a02SCAB.prt

a02BRDN.SUM

SCAB R2202 : VOC = 254.74 CO = 2796.69 NOx = 279.42

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YEAR 2010 - annualPLAN (10p.zip)

Emfac2002 V2.2 Apr 23 2003 ** WIS Enabled **

Seen Year: 2010 -- Model Years: 1965 to 2010

Run Date : 09/30/05 14:01:30
Season : Annual

Friday, September 30, 2005 2:05:33 PM Page (1)

VEHICLE ON-ROAD EMISSIONS (Emissions in tone, VMT in 1000-miles, Fuel Consumption in 1000-gallons)

SUB AREA	VEHICLE	VMT	STARTS	ROG	CO	NOX	PM2.5ex	Tire W	Brake W	PM2.5sum	SOx	Gasoline	Diesel
LOS(SCAB)	HDT	206188	14192	5023477	16.38	104.97	137.96	2.03	0.09	0.09	0.25	274.67	2020.31
	L&M	5489792	185037	33851800	98.87	1015.22	96.71	3.47	1.09	4.97	0.87	9279.22	31.01
	OTH	64681	1746	59929	2.35	27.00	16.94	0.28	0.01	0.29	0.02	79.97	172.10
	SUM	5760660	200976	38935200	117.59	1147.19	251.58	5.78	1.19	7.48	1.14	9633.86	2223.42
ORA(SCAB)	HDT	51018	3473	1303401	3.41	21.51	29.21	0.44	0.02	0.48	0.05	74.02	453.15
	L&M	2310804	70238	14317107	33.66	311.35	29.77	1.07	0.41	1.64	0.31	3434.69	12.17
	OTH	26894	568	16916	0.69	8.67	4.23	0.07	0.00	0.08	0.00	28.45	40.39
	SUM	2388720	74280	15637400	37.74	341.52	63.20	1.58	0.44	2.20	0.39	3537.15	505.71
RIV(SCAB)	HDT	57553	4738	1383733	4.14	26.91	43.76	0.55	0.02	0.61	0.08	89.94	651.59
	L&M	1013900	39602	6267361	15.50	172.49	16.32	0.67	0.23	1.00	0.18	1940.57	7.25
	OTH	23474	467	10916	0.48	7.28	2.61	0.04	0.00	0.06	0.00	24.78	22.85
	SUM	1094930	44808	7662020	20.12	206.67	62.71	1.27	0.27	1.66	0.26	2055.28	681.71
SBD(SCAB)	HDT	41683	3153	969645	2.65	17.20	30.59	0.38	0.02	0.43	0.05	52.33	468.33
	L&M	927501	30587	5737958	14.33	137.96	13.29	0.45	0.17	0.70	0.14	1497.59	4.83
	OTH	16085	301	9798	0.31	4.74	1.96	0.03	0.00	0.03	0.00	14.78	18.95
	SUM	985269	34041	6717410	17.29	159.91	45.85	0.87	0.20	1.16	0.20	1564.71	492.11
SCAB SUM	HDT	356442	25556	8680250	26.57	170.59	241.50	3.40	0.15	3.74	0.42	490.96	3593.40
	L&M	9741992	325466	60174217	162.34	1637.00	156.09	5.66	1.93	8.30	1.52	16152.07	55.27
	OTH	131134	3083	97559	3.82	47.68	25.74	0.43	0.02	0.45	0.05	147.98	254.29
	SUM	10229600	354105	68952100	192.74	1855.29	423.34	9.50	2.10	12.49	1.99	16790.99	3902.95

Note:

Banning Area is included in SCAB, not in Coachella Valley

SUM = Light & Medium Duty Vehicle + Heavy Duty Truck + Others

L&M = Passenger car + Light Duty Truck(1) & (2) + Medium Duty Truck + Motor Cycle

HDT = Light Heavy Duty Truck (1) & (2) + Medium Heavy Duty Truck + Heavy Heavy Duty Truck

OTH = Line Haul Vehicle + School Bus + Urban Bus + Motor Home

a10SCAB.prt

a10BRDN.SUM

SCAB R2202 : VOC = 126.18 CO = 1431.68 NOx = 132.48

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YEAR 2020 - annualPLAN (20p.zip)

Emfac2002 V2.2 Apr 23 2003 ** WIS Enabled **
 Scen Year: 2020 -- Model Years: 1975 to 2020

Run Date : 09/30/05 14:34:24
 Season : Annual

Friday, September 30, 2005 2:37:36 PM Page (1)

VEHICLE ON-ROAD EMISSIONS (Emissions in tone, VMT in 1000-miles, Fuel Consumption in 1000-gallons)

SUB AREA	VEHICLE	VMT	STARTS	ROG	CO	NOX	PM2.5ex	Tire W	Brake W	PM2.5sum	SOx	Gasoline	Diesel
LOS(SCAB)	HDT	235357	5529986	11.03	53.34	57.43	1.20	0.11	0.11	1.42	0.30	258.73	2507.59
	L&M	5768144	35247600	49.60	466.46	42.42	3.79	0.43	1.14	5.35	0.89	9511.64	11.96
	OTH	72318	67052	1.96	12.77	13.45	0.24	0.00	0.01	0.26	0.03	88.96	179.91
	SUM	6075820	40844600	62.58	532.58	113.31	5.23	0.55	1.25	7.03	1.21	9859.33	2699.48
ORA(SCAB)	HDT	59601	3826	2.54	11.95	12.82	0.28	0.02	0.02	0.32	0.05	70.78	528.00
	L&M	2434533	72511	18.47	145.96	12.65	1.16	0.16	0.42	1.74	0.31	3475.07	4.18
	OTH	30887	654	0.52	3.88	3.42	0.06	0.00	0.00	0.07	0.00	31.62	45.63
	SUM	2525020	76992	21.53	161.80	28.89	1.48	0.19	0.46	2.13	0.40	3577.46	577.81
RIV(SCAB)	HDT	75183	6109	3.23	16.17	19.75	0.39	0.03	0.04	0.46	0.11	99.43	892.77
	L&M	1215283	46262	9.16	89.56	7.64	0.84	0.11	0.29	1.22	0.22	2253.71	2.58
	OTH	28616	572	0.35	2.95	1.97	0.03	0.00	0.00	0.04	0.00	29.35	28.12
	SUM	1319080	52945	12.73	108.67	29.35	1.28	0.15	0.31	1.74	0.32	2382.49	923.46
SBD(SCAB)	HDT	56033	4102	2.15	11.04	14.56	0.26	0.02	0.01	0.32	0.07	59.39	635.17
	L&M	1071949	34607	8.08	66.85	5.88	0.54	0.06	0.20	0.81	0.16	1672.86	1.61
	OTH	19607	369	0.22	1.69	1.54	0.03	0.00	0.00	0.03	0.00	17.13	23.01
	SUM	1147590	7857920	10.45	79.58	21.98	0.84	0.11	0.23	1.17	0.23	1749.36	659.80
SCAB SUM	HDT	426174	30499	18.94	92.49	104.53	2.12	0.22	0.18	2.52	0.52	488.32	4563.53
	L&M	10489918	346390	85.30	768.84	68.61	6.32	0.76	2.05	9.14	1.59	16913.29	20.36
	OTH	151428	3556	3.04	21.31	20.37	0.38	0.01	0.02	0.41	0.05	167.05	276.67
	SUM	11067500	380446	107.29	882.64	193.52	8.83	0.98	2.25	12.07	2.16	17568.64	4860.55

Note:

Banning Area is included in SCAB, not in Coachella Valley
 SUM = Light & Medium Duty Vehicle + Heavy Duty Truck + Others
 L&M = Passenger car + Light Duty Truck(1) & (2) + Medium Duty Truck + Motor Cycle
 HDT = Light Heavy Duty Truck (1) & (2) + Medium Heavy Duty Truck + Heavy Heavy Duty Truck
 OTH = Line Haul Vehicle + School Bus + Urban Bus + Motor Home

a20SCAB.prm
 a20BRDN.SUM
 SCAB R2202 : VOC = 59.81 CO = 647.11 NOx = 56.19

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YEAR 2030- PLAN (30P.zip)

Emfac2002 V2.2 Apr 23 2003 ** WIS Enabled **
 Seen Year: 2030 -- Model Years: 1985 to 2030

Run Date : 09/30/05 10:37:29
 Season : Annual

Friday, September 30, 2005 10:48:41 AM Page (1)

VEHICLE ON-ROAD EMISSIONS (Emissions in tone, VMT in 1000-miles, Fuel Consumption in 1000-gallons)

SUB AREA	VEHICLE	VMT	STARTS	ROG	CO	NOX	PM2.5ex	Tire W	Brake W	PM2.5sum	SOx	Gasoline	Diesel
LOS(SCAB)	HDT	267269	18872	8.53	40.10	38.24	1.05	0.13	0.11	1.30	0.34	284.51	2893.12
	L&M	614182	204698	30.82	265.00	22.69	4.07	0.45	1.21	5.72	0.94	10046.18	3.77
	OTH	96393	2416	1.03	9.16	10.24	0.21	0.00	0.02	0.23	0.03	115.86	193.94
	SUM	6504850	225985	40.40	314.28	71.17	5.33	0.59	1.34	7.26	1.31	10446.57	3090.83
ORA(SCAB)	HDT	68914	4156	2.28	9.54	8.52	0.25	0.02	0.02	0.30	0.07	74.43	581.07
	L&M	2521110	74505	11.90	86.66	6.87	1.20	0.16	0.45	1.82	0.34	3563.88	1.15
	OTH	40310	802	0.29	2.76	2.67	0.05	0.00	0.00	0.06	0.00	40.00	49.67
	SUM	2630330	79461	14.49	98.96	18.06	1.51	0.19	0.47	2.17	0.41	3678.31	631.90
RIV(SCAB)	HDT	97122	7374	3.30	15.22	14.91	0.41	0.04	0.04	0.49	0.12	119.85	1081.00
	L&M	1409404	53472	6.77	60.57	4.65	1.01	0.12	0.32	1.43	0.25	2641.55	0.72
	OTH	39914	764	0.19	1.87	1.49	0.03	0.00	0.00	0.04	0.00	41.83	34.01
	SUM	1546440	61611	10.24	77.65	21.06	1.44	0.17	0.37	1.98	0.38	2803.24	1115.72
SBD(SCAB)	HDT	75164	5207	2.25	10.71	11.36	0.28	0.03	0.03	0.36	0.09	74.16	810.66
	L&M	1208648	39148	5.50	42.46	3.37	0.60	0.09	0.23	0.92	0.18	1896.27	0.41
	OTH	28169	503	0.12	1.07	1.15	0.03	0.00	0.00	0.04	0.00	24.28	27.42
	SUM	1311980	44860	7.87	54.25	15.87	0.92	0.13	0.27	1.31	0.28	1994.71	838.50
SCAB SUM	HDT	508469	35609	16.36	75.57	73.00	1.95	0.24	0.20	2.43	0.62	552.95	5365.86
	L&M	11280347	371822	55.00	454.69	37.59	6.90	0.82	2.21	9.92	1.69	18147.89	6.05
	OTH	204786	4486	1.65	14.87	15.56	0.33	0.01	0.02	0.38	0.06	221.97	305.05
	SUM	11993600	411917	73.00	545.13	126.16	9.19	1.08	2.44	12.71	2.38	18922.82	5676.96

Note:
 Banning Area is included in SCAB, not in Coachella Valley
 SUM = Light & Medium Duty Vehicle + Heavy Duty Truck + Others
 L&M = Passenger car + Light Duty Truck(1) & (2) + Medium Duty Truck + Motor Cycle
 HDT = Light Heavy Duty Truck (1) & (2) + Medium Heavy Duty Truck + Heavy Heavy Duty Truck
 OTH = Line Haul Vehicle + School Bus + Urban Bus + Motor Home
 P30SCAB.pm
 P30BRDN.SUM
 SCAB R2202 : VOC = 36.81 CO = 367.26 NOx = 30.14

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000071

YEAR 2010 - NBannual (10NB.zip)
 Emfac2002 V2.2 Apr 23 2003 ** WTS Enabled **
 Seen Year: 2010 -- Model Years: 1965 to 2010

Run Date : 10/11/05 15:05:35
 Season : Annual

Tuesday, October 11, 2005 5:07:35 PM Page (1)

VEHICLE ON-ROAD EMISSIONS (Emissions in tone, VMT in 1000-miles, Fuel Consumption in 1000-gallons)													
SUB AREA	VEHICLE	VMT	STARTS	ROG	CO	NOX	PM2.5ex	Tire W	Brake W	PM2.5sum	SOx	Gasoline	Diesel
LOS(SCAB)	HDT	14194	5023946	16.53	105.41	135.67	2.08	0.09	0.09	2.26	0.25	276.63	2020.50
	L&M	192308	35181928	103.42	1062.88	100.71	3.68	0.42	1.14	5.24	0.90	9739.84	32.23
	OTH	64681	59929	2.35	27.00	16.94	0.28	0.00	0.01	0.29	0.02	79.97	172.10
	SUM	5976390	40265800	122.31	1195.29	253.32	6.04	0.52	1.23	7.79	1.18	10096.43	2224.83
ORA(SCAB)	HDT	50715	1295665	3.41	21.43	28.76	0.44	0.02	0.02	0.48	0.05	73.98	450.46
	L&M	2366251	14660636	34.54	320.27	30.51	1.10	0.16	0.42	1.70	0.33	3533.04	12.46
	OTH	26894	16916	0.69	8.67	4.23	0.07	0.00	0.00	0.08	0.00	28.45	40.39
	SUM	2443860	15973200	38.64	350.37	63.50	1.62	0.18	0.45	2.25	0.39	3635.47	503.32
RIV(SCAB)	HDT	56528	1359077	4.12	26.51	42.10	0.55	0.02	0.03	0.61	0.08	88.64	640.00
	L&M	1056890	6533097	16.25	181.34	17.06	0.72	0.10	0.24	1.05	0.20	2042.97	7.56
	OTH	23474	10916	0.48	7.28	2.61	0.04	0.00	0.00	0.06	0.00	24.78	22.85
	SUM	1136890	7903090	20.84	215.12	61.78	1.32	0.12	0.27	1.72	0.27	2156.38	670.40
SBD(SCAB)	HDT	42447	987446	2.72	17.44	30.37	0.40	0.02	0.01	0.44	0.05	52.59	476.93
	L&M	951616	5887138	14.72	142.27	13.59	0.46	0.06	0.18	0.72	0.14	1534.50	4.94
	OTH	16085	9798	0.31	4.74	1.96	0.03	0.00	0.00	0.03	0.00	14.78	18.95
	SUM	1010150	6884390	17.74	164.46	45.92	0.90	0.09	0.21	1.20	0.20	1601.87	500.83
SCAB SUM	HDT	355899	8666130	26.78	170.78	236.89	3.48	0.18	0.15	3.80	0.42	491.84	3587.89
	L&M	10080253	62262795	168.93	1706.76	161.88	5.96	0.75	2.00	8.70	1.58	16850.35	57.22
	OTH	131134	97559	3.82	47.68	25.74	0.43	0.00	0.02	0.45	0.05	147.98	254.29
	SUM	10567300	71026500	199.53	1925.24	424.52	9.88	0.92	2.17	12.96	2.05	17490.16	3899.38

Note:
 Banning Area is included in SCAB, not in Coachella Valley
 SUM = Light & Medium Duty Vehicle + Heavy Duty Truck + Others
 L&M = Passenger car + Light Duty Truck(1) & (2) + Medium Duty Truck + Motor Cycle
 HDT = Light Heavy Duty Truck (1) & (2) + Medium Heavy Duty Truck + Heavy Heavy Duty Truck
 OTH = Line Haul Vehicle + School Bus + Urban Bus + Motor Home
 N10SCAB.pm
 N10BRDN.SUM
 SCAB R2202 : VOC = 131.36 CO = 1494.48 NOx = 137.42 PM10 = 7.77

YEAR 2020 - NBannual (20NB.zip)
 Emfac2002 V2.2 Apr 23 2003 ** WIS Enabled **
 Scen Year: 2020 -- Model Years: 1975 to 2020

Run Date : 10/11/05 15:57:11
 Season : Annual

Tuesday, October 11, 2005 5:06:09 PM Page (1)

VEHICLE ON-ROAD EMISSIONS (Emissions in tone, VMT in 1000-miles, Fuel Consumption in 1000-gallons)

SUB AREA	VEHICLE	VMT	STARTS	ROG	CO	NOX	PM2.5ex	Tire W	Brake W	PM2.5sum	SOx	Gasoline	Diesel
LOS(SCAB)	HDT	16580	5569588	11.28	54.45	56.15	1.26	0.11	0.11	1.49	0.30	268.09	2525.54
	L&M	206510	37713216	53.68	509.25	45.84	4.30	0.46	1.23	5.98	0.98	10468.65	12.80
	OTH	1960	67052	1.96	12.77	13.45	0.24	0.00	0.01	0.26	0.03	88.96	179.91
	SUM	225049	43349900	66.91	576.48	115.43	5.81	0.58	1.33	7.72	1.30	10825.70	2718.27
ORA(SCAB)	HDT	3871	1497110	2.59	12.21	12.82	0.28	0.02	0.02	0.33	0.06	73.03	534.39
	L&M	75824	15595689	19.39	154.60	13.28	1.25	0.17	0.45	1.86	0.36	3683.62	4.37
	OTH	654	19469	0.52	3.88	3.42	0.06	0.00	0.00	0.07	0.00	31.62	45.63
	SUM	80350	17112300	22.51	170.69	29.52	1.59	0.19	0.48	2.26	0.42	3788.27	584.40
RIV(SCAB)	HDT	5750	1656177	3.11	15.62	18.28	0.39	0.03	0.04	0.46	0.10	98.94	840.15
	L&M	48852	7859484	9.83	97.41	8.21	0.97	0.11	0.29	1.39	0.23	2493.18	2.72
	OTH	572	13318	0.35	2.95	1.97	0.03	0.00	0.00	0.04	0.00	29.35	28.12
	SUM	55175	9528980	13.29	115.99	28.45	1.41	0.15	0.33	1.89	0.34	2621.47	870.99
SBD(SCAB)	HDT	3980	1233856	2.12	10.75	13.57	0.27	0.02	0.01	0.32	0.06	57.35	616.28
	L&M	35555	6754325	8.31	70.09	6.05	0.57	0.07	0.21	0.86	0.16	1727.01	1.66
	OTH	369	11943	0.22	1.69	1.54	0.03	0.00	0.00	0.03	0.00	17.13	23.01
	SUM	39904	8000120	10.65	82.54	21.16	0.87	0.11	0.24	1.22	0.24	1801.47	640.96
SCAB SUM	HDT	30182	9956718	19.09	93.01	100.81	2.20	0.21	0.18	2.59	0.52	497.40	4516.38
	L&M	366742	67922655	91.23	831.37	73.37	7.08	0.81	2.17	10.07	1.73	18372.48	21.58
	OTH	3556	111782	3.04	21.31	20.37	0.38	0.01	0.02	0.41	0.05	167.05	276.67
	SUM	400478	77991200	113.36	945.70	194.56	9.68	1.03	2.37	13.08	2.30	19036.91	4814.62

Note:
 Banning Area is included in SCAB, not in Coachella Valley
 SUM = Light & Medium Duty Vehicle + Heavy Duty Truck + Others
 L&M = Passenger car + Light Duty Truck(1) & (2) + Medium Duty Truck + Motor Cycle
 HDT = Light Heavy Duty Truck (1) & (2) + Medium Heavy Duty Truck + Heavy Heavy Duty Truck
 OTH = Line Haul Vehicle + School Bus + Urban Bus + Motor Home
 N205SCAB.prm
 N20BRDN.SUM
 SCAB R2202 : VOC = 64.18 CO = 701.75 NOx = 60.13 PM10 = 8.98

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0000073

YEAR 2030 - NBannual (30NB.zip)
 Emfac2002 V2.2 Apr 23 2003 ** WIS Enabled **
 Scen Year: 2030 -- Model Years: 1985 to 2030

Run Date : 10/11/05 15:32:23
 Season : Annual

Tuesday, October 11, 2005 4:59:16 PM Page (1)

VEHICLE ON-ROAD EMISSIONS (Emissions in tone, VMT in 1000-miles, Fuel Consumption in 1000-gallons)

SUB AREA	VEHICLE	VMT	STARTS	ROG	CO	NOX	PM2.5ex	Tire W	Brake W	PM2.5sum	SOx	Gasoline	Diesel
LOS(SCAB)	HDT	261509	6057990	8.56	40.53	36.30	1.12	0.12	0.11	1.35	0.33	296.84	2830.79
	L&M	6541212	39799565	33.38	292.05	24.68	4.82	0.48	1.28	6.60	1.07	11265.54	4.01
	OTH	96393	78598	1.03	9.16	10.24	0.21	0.00	0.02	0.23	0.03	115.86	193.94
	SUM	6899120	45936100	42.99	341.73	71.24	6.14	0.62	1.42	8.18	1.42	11678.25	3028.73
ORA(SCAB)	HDT	68452	1679917	2.29	9.59	8.35	0.25	0.02	0.02	0.30	0.07	75.77	577.17
	L&M	2664206	16223003	12.63	93.27	7.31	1.32	0.17	0.46	1.97	0.36	3838.01	1.22
	OTH	40310	22296	0.29	2.76	2.67	0.05	0.00	0.00	0.06	0.00	40.00	49.67
	SUM	2772960	17925200	15.22	105.62	18.34	1.64	0.20	0.50	2.34	0.44	3953.79	628.08
RIV(SCAB)	HDT	89481	2076749	3.15	14.77	13.38	0.41	0.04	0.04	0.50	0.12	122.49	995.95
	L&M	1462764	8934934	7.18	66.26	4.99	1.22	0.13	0.33	1.68	0.27	2961.97	0.73
	OTH	39914	16356	0.19	1.87	1.49	0.03	0.00	0.00	0.04	0.00	41.83	34.01
	SUM	1592160	11028000	10.51	82.92	19.86	1.68	0.17	0.37	2.23	0.40	3126.29	1030.69
SBD(SCAB)	HDT	67483	1519739	2.06	9.77	9.79	0.26	0.03	0.03	0.33	0.07	67.49	727.83
	L&M	1222779	7483619	5.58	44.53	3.44	0.66	0.09	0.24	0.97	0.19	1958.00	0.42
	OTH	28169	15032	0.12	1.07	1.15	0.03	0.00	0.00	0.04	0.00	24.28	27.42
	SUM	1318430	9018390	7.77	55.36	14.37	0.95	0.12	0.27	1.34	0.27	2049.78	755.67
SCAB SUM	HDT	486925	11334389	16.07	74.66	67.82	2.05	0.24	0.19	2.48	0.59	562.60	5131.74
	L&M	11890958	72441032	58.77	496.10	40.44	8.03	0.86	2.32	11.22	1.88	20023.52	6.40
	OTH	204786	132282	1.65	14.87	15.56	0.33	0.01	0.02	0.38	0.06	221.97	305.05
	SUM	12582700	83907800	76.48	585.63	123.81	10.41	1.11	2.55	14.08	2.53	20808.11	5443.18

Note:
 Banning Area is included in SCAB, not in Coachella Valley
 SUM = Light & Medium Duty Vehicle + Heavy Duty Truck + Others
 L&M = Passenger car + Light Duty Truck(1) & (2) + Medium Duty Truck + Motor Cycle
 HDT = Light Heavy Duty Truck (1) & (2) + Medium Heavy Duty Truck + Heavy Heavy Duty Truck
 OTH = Line Haul Vehicle + School Bus + Urban Bus + Motor Home
 N30SCAB.pri
 N30BRDN.SUM
 SCAB R2202 : VOC = 39.54 CO = 403.22 NOx = 32.47 ~~PM410-9.97~~

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** Summary for /p-6/=04rr02p/=84summary on Tue Nov 8 15:01:18 PST 2005
date

Total Population	
Los Angeles County	9576322
Orange County	2867240
Riverside County	1525315
San Bernardino County	1695031
Ventura County	758090
TOTAL	16421998

-Total Workers	
Los Angeles County	4078765
Orange County	1383655
Riverside County	614719
San Bernardino County	676330
Ventura County	359204
TOTAL	7112673

-Total Employment	
Los Angeles County	4447345
Orange County	1514576
Riverside County	515463
San Bernardino County	589369
Ventura County	337259
TOTAL	7404012

-Total Household	
Los Angeles County	3135803
Orange County	939712
Riverside County	503431
San Bernardino County	522640
Ventura County	244477
TOTAL	5346063

-Total Person Trips	
Los Angeles County	32153636
Orange County	10669848
Riverside County	5228154
San Bernardino County	5640028
Ventura County	2797439
TOTAL	56489106

-Total Person Trips by Trip type	
Home Base Work	9090292
Home Base University	1861244
Home Base School	5245811
Home Base Other	22239131
Other Base Other	11974061
Work Base Other	6078650
TOTAL	56489189

-Home To Work/University Mode Choice	
Drive Alone	8366038
% Person Trips	76.392

000075

Carpool	1572766
% Person Trips	14.361
Transit	527584
% Person Trips	4.817
Non-Motorized	485066
% Person Trips	4.429

Home-Work Vehicle Person	9938802
Home-Work Vehicle Driver	9016660
Average Vehicle Occupancy	1.1023

-Total Person Trips Mode Choice	
Drive Alone	26990326
% Person Trips	47.780
Carpool	22848017
% Person Trips	40.447
Transit	1219623
% Person Trips	2.159
School Bus	742246
% Person Trips	1.314
Non Motorized	4688894
% Person Trips	8.301

Total Vehicle Persons	49838343
Total Vehicle Driver	34739205
Average Vehicle Occupancy	1.4346

-Daily Transit Boarding	
Metrolink	29585
MTA bus	1283152
MTA Rail	211996
Others	732781
Maglev	
TOTAL	2257514

-Average Trip Length	
Home-To-Work Avg Travel Time	21.2320
Home-To-Work Avg Travel Distance	12.5133
All Trip Type Avg Travel Time	13.4917
All Trip Type Avg Travel Distance	7.8935

-Avg Travel Speed (Light and Medium Vehicles)

Total Modeling Area (Daily)	
Avg Mix-Flow Speed	49.7662
Avg HOV Speed	52.6685
Avg Arterial Speed	30.3926
Avg Speed (All Facilities)	35.3838

SCAB Area (Daily)	
Avg Mix-Flow Speed	48.8867
Avg HOV Speed	52.6027

Avg Arterial Speed	29.4061
Total Modeling Area (6-9 AM)	
Avg Mix Flow Speed	46.6389
Avg Hov Speed	51.1901
Avg Arterial speed	29.1005
Avg Speed (All Facilities)	33.5780
-Vehicle Miles Traveled (VMT)	
Light and Medium Duty Vehicle	343169768
Heavy Duty Truck	27260191
All Vehicles and trucks	370429958
-Vehicle Hours Traveled (VHT)	
Light and Medium Duty Vehicle	9698491
Heavy Duty Truck	620251
All Vehicles and trucks	10318742
-Vehicle Hours Delayed	
Light and Medium Duty Vehicle	1476769
Heavy Duty Truck	100845
All Vehicles and trucks	1577614
-Air Quality Statistics: Emissions by Air Basin	
Tons of ROG By Air-Basin	
South Coast AB	350.540
Ventura County	

** Summary for /g-10/=04RTIPf/=04t10p/=84summary
' 2005 date

on Tue Nov 8 13:28:35 CS

-Total Population	
Los Angeles County	10711323
Orange County	3291738
Riverside County	2045211
San Bernardino County	2032156
Ventura County	865187
TOTAL	18945615

-Total Workers	
Los Angeles County	4499020
Orange County	1551664
Riverside County	850510
San Bernardino County	825662
Ventura County	405114
TOTAL	8131970

-Total Employment	
Los Angeles County	5015790
Orange County	1749993
Riverside County	715241
San Bernardino County	764667
Ventura County	381678
TOTAL	8627369

-Total Household	
Los Angeles County	3402537
Orange County	1033974
Riverside County	678936
San Bernardino County	610580
Ventura County	275366
TOTAL	6001393

-Total Person Trips	
Los Angeles County	34474669
Orange County	11755866
Riverside County	6664306
San Bernardino County	6473809
Ventura County	3096667
TOTAL	62465318

-Total Person Trips by Trip type	
Home Base Work	10038697
Home Base University	2287694
Home Base School	5553078
Home Base Other	24562146
Other Base Other	13235601
Work Base Other	6788180
TOTAL	62465396

-Home To Work/University Mode Choice	
Drive Alone	9067330
% Person Trips	73.561

Carpool	1808504
% Person Trips	14.672
Transit	753044
% Person Trips	6.109
Non-Motorized	697436
% Person Trips	5.658
Home-Work Vehicle Person	10875833
Home-Work Vehicle Driver	9810709
Average Vehicle Occupancy	1.1086
-Total Person Trips Mode Choice	
Drive Alone	29171346
% Person Trips	46.700
Carpool	24976623
% Person Trips	39.985
Transit	1881195
% Person Trips	3.012
School Bus	761013
% Person Trips	1.218
Non Motorized	5675141
% Person Trips	9.085
Total Vehicle Persons	54147969
Total Vehicle Driver	37671461
Average Vehicle Occupancy	1.4374
-Daily Transit Boarding	
Metrolink	66572
MTA bus	1917405
MTA Rail	313155
Others	1067561
Maglev	
TOTAL	3364693
-Average Trip Length	
Home-To-Work Avg Travel Time	20.9556
Home-To-Work Avg Travel Distance	12.3295
All Trip Type Avg Travel Time	13.4450
All Trip Type Avg Travel Distance	7.8983
-Avg Travel Speed (Light and Medium Vehicles)	
Total Modeling Area (Daily)	
Avg Mix-Flow Speed	50.2362
Avg HOV Speed	52.9353
Avg Arterial Speed	30.5155
Avg Speed (All Facilities)	35.5352
SCAB Area (Daily)	
Avg Mix-Flow Speed	49.2588
Avg HOV Speed	52.8414

Avg Arterial Speed	29.4124
--------------------	---------

Total Modeling Area (6-9 AM)

Avg Mix Flow Speed	46.5581
Avg Hov Speed	51.0685
Avg Arterial speed	28.9609
Avg Speed (All Facilities)	33.4181

-Vehicle Miles Traveled (VMT)

Light and Medium Duty Vehicle	369574810
Heavy Duty Truck	28964031
All Vehicles and trucks	398538840

-Vehicle Hours Traveled (VHT)

Light and Medium Duty Vehicle	10400258
Heavy Duty Truck	660375
All Vehicles and trucks	11060633

-Vehicle Hours Delayed

Light and Medium Duty Vehicle	1550466
Heavy Duty Truck	104735
All Vehicles and trucks	1655201

Air Quality Statistics: Emissions by Air Basin
Tons of ROG By Air-Basin
South Coast AB

-Total Population
Los Angeles County 11483177
Orange County 3433722
Riverside County 2608023
San Bernardino County 2370524
Ventura County 929195
TOTAL 20824641

-Total Workers
Los Angeles County 4867685
Orange County 1632560
Riverside County 1079787
San Bernardino County 966212
Ventura County 438415
TOTAL 8984659

-Total Employment
Los Angeles County 5362879
Orange County 1848112
Riverside County 942655
San Bernardino County 969385
Ventura County 424479
TOTAL 9547510

-Total Household
Los Angeles County 3762057
Orange County 1064086
Riverside County 902812
San Bernardino County 749838
Ventura County 303602
TOTAL 6782395

-Total Person Trips
Los Angeles County 37397804
Orange County 12270954
Riverside County 8516223
San Bernardino County 7726383
Ventura County 3347280
TOTAL 69258644

-Total Person Trips by Trip type
Home Base Work 10907792
Home Base University 2364345
Home Base School 6213956
Home Base Other 27426698
Other Base Other 14794165
Work Base Other 7551799
TOTAL 69258755

-Home To Work/University Mode Choice
Drive Alone 9750798
% Person Trips 73.469

Carpool	1896798
% Person Trips	14.292
Transit	874244
% Person Trips	6.587
Non-Motorized	750187
% Person Trips	5.652

Home-Work Vehicle Person	11647595
Home-Work Vehicle Driver	10533654
Average Vehicle Occupancy	1.1058

-Total Person Trips Mode Choice	
Drive Alone	32357317
% Person Trips	46.720
Carpool	27550479
% Person Trips	39.779
Transit	2171176
% Person Trips	3.135
School Bus	816423
% Person Trips	1.179
Non Motorized	6363249
% Person Trips	9.188

Total Vehicle Persons	59907796
Total Vehicle Driver	41710811
Average Vehicle Occupancy	1.4363

-Daily Transit Boarding	
Metrolink	83877
MTA bus	2093890
MTA Rail	487240
Others	1163386
Maglev	106480
TOTAL	3934873

-Average Trip Length	
Home-To-Work Avg Travel Time	20.7182
Home-To-Work Avg Travel Distance	12.0654
All Trip Type Avg Travel Time	13.2353
All Trip Type Avg Travel Distance	7.6746

-Avg Travel Speed (Light and Medium Vehicles)

Total Modeling Area (Daily)	
Avg Mix-Flow Speed	49.7815
Avg HOV Speed	53.0731
Avg Arterial Speed	30.2584
Avg Speed (All Facilities)	34.9990

SCAB Area (Daily)	
Avg Mix-Flow Speed	48.7414
Avg HOV Speed	52.7577

Avg Arterial Speed	29.0992
Total Modeling Area (6-9 AM)	
Avg Mix Flow Speed	46.5040
Avg Hov Speed	50.9569
Avg Arterial speed	28.6129
Avg Speed (All Facilities)	32.9496
-Vehicle Miles Traveled (VMT)	
Light and Medium Duty Vehicle	398648845
Heavy Duty Truck	34773476
All Vehicles and trucks	433422321
-Vehicle Hours Traveled (VHT)	
Light and Medium Duty Vehicle	11390303
Heavy Duty Truck	797756
All Vehicles and trucks	12188060
-Vehicle Hours Delayed	
Light and Medium Duty Vehicle	1756903
Heavy Duty Truck	134777
All Vehicles and trucks	1891680
-Air Quality Statistics: Emissions by Air Basin	
Tons of ROG By Air-Basin	
South Coast AB	119.000
Ventura County	6.200
Antelope Valley	2.120
Victor Valley	3.840
Coachella Valley	2.150
TOTAL	133.31
Tons of CO By Air-Basin	
South Coast AB	868.560
Ventura County	39.990
Antelope Valley	19.980
Victor Valley	37.890
Coachella Valley	22.010
TOTAL	988.43
Tons of NOX By Air-Basin	
South Coast AB	206.460
Ventura County	6.880
Antelope Valley	3.260
Victor Valley	10.090
Coachella Valley	5.260
TOTAL	231.95
Tons of PM10 By Air-Basin	
South Coast AB	18.740
Ventura County	.790
Antelope Valley	.450
Victor Valley	.840

Coachella Valley	.550
TOTAL	21.37

Tons of SOx By Air-Basin

South Coast AB	2.110
Ventura County	.090
Antelope Valley	.050
Victor Valley	.100
Coachella Valley	.060
TOTAL	2.41

GASOLINE in 1000 Gallons By Air-Basin

South Coast AB	17118.230
Ventura County	903.700
Antelope Valley	486.440
Victor Valley	727.320
Coachella Valley	526.300
TOTAL	19762

DIESEL in 1000 Gallons By Air-Basin

South Coast AB	4860.560
Ventura County	128.210
Antelope Valley	68.710
Victor Valley	246.860
Coachella Valley	131.660
TOTAL	5436

PK
*** Summary for /g-10/=04RTIPf/=04t30p/=84summary
r 2005 date

on Tue Nov 8 15:56:45 CS

-Total Population
Los Angeles County 12196590
Orange County 3552955
Riverside County 3110387
San Bernardino County 2686063
Ventura County 989771
TOTAL 22535766

-Total Workers
Los Angeles County 5210346
Orange County 1701552
Riverside County 1280466
San Bernardino County 1097783
Ventura County 469998
TOTAL 9760145

-Total Employment
Los Angeles County 5656758
Orange County 1921795
Riverside County 1174109
San Bernardino County 1175961
Ventura County 465497
TOTAL 10394120

-Total Household
Los Angeles County 4118181
Orange County 1098477
Riverside County 1124411
San Bernardino County 890967
Ventura County 332115
TOTAL 7564151

-Total Person Trips
Los Angeles County 40170427
Orange County 12677725
Riverside County 10322321
San Bernardino County 8843668
Ventura County 3621615
TOTAL 75635757

-Total Person Trips by Trip type
Home Base Work 11643519
Home Base University 2440866
Home Base School 6873343
Home Base Other 30100825
Other Base Other 16280651
Work Base Other 8296683
TOTAL 75635887

-Home To Work/University Mode Choice
Drive Alone 10295251
% Person Trips 73.098

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Carpool	1947277
% Person Trips	13.826
Transit	1049147
% Person Trips	7.449
Non-Motorized	792582
% Person Trips	5.627

Home-Work Vehicle Person	12242526
Home-Work Vehicle Driver	11102494
Average Vehicle Occupancy	1.1027

-Total Person Trips Mode Choice	
Drive Alone	35302362
% Person Trips	46.674
Carpool	29946970
% Person Trips	39.594
Transit	2535466
% Person Trips	3.352
School Bus	870265
% Person Trips	1.151
Non Motorized	6980695
% Person Trips	9.229

Total Vehicle Persons	65249331
Total Vehicle Driver	45425978
Average Vehicle Occupancy	1.4364

-Daily Transit Boarding	
Metrolink	101100
MTA bus	2229148
MTA Rail	641751
Others	1334329
Maglev	381441
TOTAL	4687769

-Average Trip Length	
Home-To-Work Avg Travel Time	20.7849
Home-To-Work Avg Travel Distance	12.0435
All Trip Type Avg Travel Time	13.2841
All Trip Type Avg Travel Distance	7.6567

-Avg Travel Speed (Light and Medium Vehicles)

Total Modeling Area (Daily)	
Avg Mix-Flow Speed	49.6026
Avg HOV Speed	52.4633
Avg Arterial Speed	29.8075
Avg Speed (All Facilities)	34.6119

SCAB Area (Daily)	
Avg Mix-Flow Speed	48.5279
Avg HOV Speed	52.1935

Avg Arterial Speed	28.6304
Total Modeling Area (6-9 AM)	
Avg Mix Flow Speed	46.5477
Avg Hov Speed	51.1098
Avg Arterial speed	28.0396
Avg Speed (All Facilities)	32.5494
-Vehicle Miles Traveled (VMT)	
Light and Medium Duty Vehicle	431796436
Heavy Duty Truck	40806707
All Vehicles and trucks	472603144
-Vehicle Hours Traveled (VHT)	
Light and Medium Duty Vehicle	12475358
Heavy Duty Truck	940672
All Vehicles and trucks	13416030
-Vehicle Hours Delayed	
Light and Medium Duty Vehicle	2012676
Heavy Duty Truck	164719
All Vehicles and trucks	2177395
-Air Quality Statistics: Emissions by Air Basin (1)	
Tons of ROG By Air-Basin	
South Coast AB	